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Electrostatics MCQ Quiz

Take Electrostatics Quiz To test your Knowledge

Below are few **Electrostatics MCQ** test that checks your basic knowledge of Electrostatics. This **Electrostatics Test** contains around 20 questions of **multiple choice** with 4 options. You have to select the right answer to a question. You can see the correct answer by clicking the view answer link.

Q1. An electric dipole is placed at an angle of 30° with an electric field intensity 2×10^5 N/C. It experiences a torque equal to 4 N m. The charge on the dipole, if the dipole length is 2 cm, is

- A. 5 mC
- B. 8 mC
- C. 7 ?C
- **D. 2 mC**

Q2. Three concentric metallic spherical shells of radii R, 2R, 3R, are given charges Q1, Q2, Q3, respectively. It is found that the surface charge densities on the outer surfaces of the shells are equal. Then, the ratio of the charges given to the shells, Q1 : Q2 : Q3, is

- A. 1 : 4 : 9
- B. 1 : 2 : 3
- **C. 1 : 3 : 5**
- D. 1 : 8 : 18

Q3. Two identical charged spheres are suspended by strings of equal lengths. The strings make an angle of 30° with each other. When suspended in a liquid of density 0.8 g cm^{-3} , the angle remains the same. If density of the material of the sphere is 1.6 g cm^{-3} , the dielectric constant of the liquid is

- A. 1
- **B. 2**
- C. 3
- D. 4

Q4. we useto relieve discomfort of allergy sufferers in homes.

- A. vacuum cleaner
- B. wind cleaner
- C. **electrostatic air cleaner**
- D. none of the above

Q5. Value of k in coulomb's law depends upon -

- A. **medium between two charges**
- B. magnitude of charges
- C. distance between charges
- D. both A and B

Q6. Value of k in coulomb's law depends upon -

- A. **medium between two charges**
- B. magnitude of charges
- C. distance between charges
- D. both A and B

Q7. Value of k in coulomb's law depends upon -

- A. **medium between two charges**
- B. magnitude of charges
- C. distance between charges
- D. both A and B

Q8. Coulomb is equal to charge of -

- A. 5.25×10^{18}
- B. 6.25×10^{18}
- C. 8.25×10^{18}
- D. **7.25×10^{18}**

Q9. Selenium becomes a conductor in light so it behaves like -

- A. Semiconductor
- B. Light emitting diode
- **C. Photodiode**
- D. Capacitor

Q10. Property of material due to which it attracts or repels other objects is

- **A. charge**
- B. friction
- C. velocity
- D. current

Q11. Charge on capacitor plates is directly proportional to -

- A. electric field intensity
- B. current
- C. potential difference
- **D. resistance**

Q12. What happens when we rub a glass rod with a silk cloth ?

- **A. glass rod acquires positive charge while silk acquires negative charges**
- B. glass rod acquires negative charge while silk acquires positive charge
- C. both glass rod and silk acquire negative charge
- D. both glass rod and silk acquire positive charge

Q13. Thunderclouds are charged by friction between -

- A. layers of clouds
- B. clouds and air
- **C. water molecules and air**
- D. layers of air

Q14. If the distance between the two point charges become half then force between them becomes

- A. double
- **B. four times**

- C. remains same
- D. half

Q15. Charge on capacitor plates is directly proportional to

- A. current
- B. potential difference
- C. electric field intensity
- D. resistance

Q16. In equation $Q=CV$, C is constant of proportionality called capacitor's

- A. power
- B. heat
- C. capacitance
- D. electric intensity

Q17. In equation $Q=CV$, C is constant of proportionality called capacitor's

- A. power
- B. heat
- C. capacitance
- D. electric intensity

Q18. An Electric field can deflect _____ ?

- A. Neutrons
- B. X-rays
- C. γ - rays
- D. None of These

Q19. The Electric line of force are _____ ?

- A. Physically existing everywhere
- B. imaginary
- C. physically existing near the charges
- D. depends upon case

Q20. The Value of the capacitance depends upon the_____ ?

- A. Thickness of the capacitor plates
- **B. geometry of the capacitor**
- C. density of the capacitor plates
- D. voltage applied

Q21. Particles With Opposite Charges

- **A. attract**
- B. rebel
- C. repel
- D. attack

Q22. Electroscope Can Be Charged By

- A. convection
- B. radiation
- **C. conduction**
- D. all of above

Q23. The SI Unit Of Electric Potential Is

- **A. volts**
- B. ohm
- C. coulomb
- D. newton

Q24. Dielectric Strength Of Medium

- A. increases with rise in temperature
- B. increases with moisture content
- C. is same for all insulating materials
- **D. none of the above**

Q25. The Dissipation Factor Of A Good Dielectric Is Of The Order Of

- **A. 0.0002**
- B. 0.002
- C. 0.02
- D. 0.2

Q26. The Electric Field At A Point Situated At A Distance D From Straight Charged Conductor Is

- A. proportional to d
- **B. inversely proportional to d**
- C. inversely proportional to d^2
- D. none of the above

Q27. Paper Capacitor And Mica Capacitor Are The Examples Of

- A. ceramic capacitors
- **B. fixed capacitors**
- C. parallel plate capacitors
- D. electrolytic capacitors

Q28. Which Of The Following Is Not A Good Insulator?

- **A. Copper**
- B. Glass
- C. rubber
- D. wool

Q29. The Reason A Charged Balloon Will Stick To A Wall Is That

- A. the charge is slightly sticky and acts like glue
- B. electrons transfer back and forth between the wall and the balloon
- **C. induced opposite charges in the wall are closer than other wall charges**
- D. balloon material simply sticks to walls

Q30. The Common Hydrogen Atom Consists Of

- A. one proton
- **B. one proton and one electron**

- C. two protons, one neutron, and two electrons
- D. one neutron and one electron

Q31. The Accumulation Of Excess Electric Charge On An Object Is Called

- A. Static electricity
- B. Electric discharge
- C. Resistance
- D. Circuit

Q32. Which Of The Following Is NOT A Subatomic Particle?

- A. Proton
- B. Neutron
- C. Electron
- D. Positron

Q33. An Electrolytic Capacitor Is Generally Made To Provide

- A. low capacitance
- B. fixed capacitance
- C. variable capacitance
- D. large value of capacitance

Q34. What Charge Does A Proton Have?

- A. negative (-)
- B. positive (+)
- C. neutral or no charge (0)

Q35. What Is The Symbol For Force?

- A. F
- B. f
- C. N
- D. n